

**Advisory Action**  
**Before the Filing of an Appeal Brief**

**Application No.**

10/583,220

**Applicant(s)**

MIYAZAKI ET AL.

**Examiner**

CAITLIN KIECHLE

**Art Unit**

1733

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 02 September 2011 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because:  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☒ Other: note the attached interview summary for 9/14/2011.

/ Roy King/  
Supervisory Patent Examiner, Art Unit 1733

/CAITLIN KIECHLE/  
Examiner, Art Unit 1733

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments are not persuasive and no claims have been amended.

Applicant argued that the inventors discovered that the addition of W to the Fe-Cr ferritic alloys and a decrease in the amount of precipitated W remarkably contribute to a decrease in thermal expansion coefficient of the alloys. Citing MPEP 2112, the Office Action concludes that one would expect the steel of Kawabata to inherently have a similar amount of precipitated W and a similar average thermal expansion coefficient because the composition of the ferritic Cr-contained steel of Kawabata overlaps with the composition of the steel of the instant invention and since the steel of Kawabata is made using a method similar to the method of the instant invention. Applicant argued that the Office Action has not established a prima facie case of obviousness so the burden has not shifted to Applicants to establish non-obviousness because the claimed and prior art products are not identical or substantially identical in structure or composition, and they are not produced by identical or substantially identical processes. Kawabata disclosed annealing select steel sheet samples at 1150 degC. However, none of the samples include any W and therefore differ from Applicants' claimed steel at least in terms of W content and precipitated W%. In addition, only one steel sample of Kawabata contains W (1.5 wt%) which is outside the claimed range and additionally, the Declaration submitted March 9, 2011 establishes that this sole sample would also differ from Applicants' claimed steel in terms of precipitated W%. Therefore, evidence of record in this application shows that Applicants' claimed steel and the steel product of Kawabata are not identical or substantially identical in structure or composition.

The Examiner's response is that the Office Action has established a prima facie case of obviousness. As set forth in the previous Office Action, since the composition of the ferritic Cr-contained steel of Kawabata overlaps with the composition of the steel of the instant invention and since the steel of Kawabata is made using a method substantially similar to the method of the instant invention (with an annealing temperature of 700-1300 degC which overlaps with the instant claimed range of 1050 to 1200 degC), one of ordinary skill in the art would have expected the steel of Kawabata to have a similar amount of precipitated W and a similar average thermal expansion coefficient between 20 degC and 800 degC. In addition, since the claimed compositional and annealing temperature ranges of the instant claims either overlap or are within the ranges disclosed by Kawabata, a prima facie case of obviousness exists. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed ferritic Cr-contained steel composition and annealing temperature from the steel composition and annealing temperature disclosed by Kawabata because Kawabata teaches the same utility (i.e. materials for automobiles) in the whole disclosed range. Applicant has not submitted factual evidence to demonstrate either unexpected results or criticality to overcome the prima facie case of obviousness due to the overlapping ranges. In addition, the Examiner has not solely relied on the specific annealing temperature example of 1150 degC in Kawabata, but rather has relied on the broader annealing temperature range disclosed by Kawabata of 700-1300 degC. Applicant has not demonstrated the criticality of the narrower claimed annealing range within the broader range of Kawabata. Furthermore, the scope of Kawabata is not limited to the specific embodiments it teaches. See MPEP 2123. Rather, the Examiner relied on the broadest teaching of Kawabata which discloses a steel composition that overlaps with the instant claimed steel composition as set forth in the previous Office Action and therefore a prima facie case of obviousness exists.

Applicant also argued that in contrast to Kawabata's disclosure of general annealing conditions of 700-1300 degC, Applicants discovered a steel product with the claimed amount of precipitated W that results from careful control of process conditions, in particular the annealing conditions. Kawabata disclose annealing select steel sheet samples at 1150 degC. However, none of these samples include any W and therefore differ from Applicants' claimed steel at least in terms of W content and precipitated W%. In addition, the cold rolled steel sheet samples of Kawabata represent 38 of a total of 101 samples and the selected samples represent much less than half the samples of Kawabata which expressly discloses general annealing conditions at 700-1300 degC. Therefore, the record establishes that Applicants' claimed steel and the steel of Kawabata are produced by processes that are not identical or substantially identical. Instead, they differ significantly at least with respect to the control of precipitated W% and final annealing temperature. Applicants submit that the burden has not shifted to Applicants because the Office failed to set forth a prima facie case of obviousness under the standard of MPEP 2112.

The Examiner's response is that the scope of Kawabata is not limited to the specific embodiments it teaches. Rather, the Examiner relied on the broadest teaching of Kawabata which discloses a steel composition and annealing temperature that overlap with the instant claimed steel composition and annealing temperature as set forth in the previous Office Action and therefore a prima facie case of obviousness exists. The Examiner maintains Applicant has not overcome the prima facie case by submitting factual evidence to either demonstrate the criticality or unexpected results for either a specific elemental range or the annealing temperature range.

Applicant also argued, assuming a prima facie case of obviousness exists, that steel products C, D, E, O, P, Q, R, S, and T of the instant specification all have elemental compositions within the ranges and general processing conditions of Kawabata. However, every one of those steel products fall outside Applicants' claimed precipitated W% and thermal expansion coefficient ranges. Accordingly, Applicants' examples show that the steel of Kawabata would not necessarily have Applicants' claimed precipitated W% and thermal expansion coefficient.

The Examiner's response is that the evidence cited by Applicant does not demonstrate either unexpected results or criticality. As stated above, Kawabata teaches steel compositional ranges and an annealing temperature range that both overlap with the instant claimed composition ranges and annealing temperature range and therefore a prima facie case of obviousness exists. Applicant has not overcome the prima facie case of obviousness by, for example, either demonstrating unexpected results or criticality for the annealing temperature range which in this case is cited by Applicant as effecting the amount of precipitated W and the thermal expansion coefficient. Rather, all of the examples cited by Applicant for comparison are well outside the claimed annealing temperature range. The closest comparative

examples are 1010 degC and 1220 degC which are much lower and much higher, respectively, than the claimed minimum of 1050 degC and the claimed maximum of 1200 degC.

Applicant also argued that steel products 1, 2, and B of the instant specification have the same composition, a composition within the ranges and general processing conditions of Kawabata. However, steel B is outside Applicants' claimed precipitated W% and thermal expansion coefficient ranges. Examples 3, 4, 5, C, D, examples 6, 7, E, and examples N and O exhibit a similar finding. Accordingly, Applicants' examples show that the steel of Kawabata would not necessarily have Applicants' claimed precipitated W% and thermal expansion coefficient.

The Examiner's response is that the evidence cited by Applicant does not demonstrate either unexpected results or criticality. As stated above, Kawabata teaches steel compositional ranges and an annealing temperature range that both overlap with the instant claimed composition ranges and annealing temperature range and therefore a prima facie case of obviousness exists. Applicant has not overcome the prima facie case of obviousness by, for example, either demonstrating unexpected results or criticality for the annealing temperature range which in this case is cited by Applicant as effecting the amount of precipitated W and the thermal expansion coefficient. Rather, the sole comparative example cited by Applicant is well outside the claimed annealing temperature range and is not commensurate in scope with the claimed range. The comparative example has an annealing temperature of 1000 degC which is much lower than the claimed minimum of 1050 degC and the upper limit of the claimed annealing range is not addressed. This same reasoning is applied to the other examples cited by Applicant.

Finally, Applicant argued that steel sample nos. 1-85 and 87-101 of Kawabata do not contain any W and therefore cannot possess Applicants' claimed precipitated W% of 0.005% to 0.1%. Also, steel sample no. 86, the only sample of Kawabata containing W (1.5 wt%), would not contain Applicants' claimed precipitated W as established by the Declaration submitted March 9, 2011. Therefore, the evidence of record clearly establishes that the steel of Kawabata does not necessarily possess Applicants' claimed precipitated W% or claimed average thermal expansion coefficient. Accordingly, the evidence of record successfully rebuts an obviousness rejection under MPEP 2112, even assuming a prima facie case of obviousness has been established.

The Examiner's response is that the scope of Kawabata is not limited to the specific embodiments it teaches. Rather, the Examiner relied on the broadest teaching of Kawabata which discloses a steel composition and annealing temperature that overlap with the instant claimed steel composition and annealing temperature as set forth in the previous Office Action and therefore a prima facie case of obviousness exists. The Examiner maintains Applicant has not overcome the prima facie case by submitting factual evidence to either demonstrate the criticality or unexpected results for either a specific elemental range or the annealing temperature range.